

**ABSTRACT OF THE DISCLOSURE**

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2 According to one embodiment, a shallow trench isolation (STI) method (500) may  
3 include forming an etch mask layer over both a first and second substrate side (504). An etch  
4 mask layer over a first substrate side (506) may be patterned to form a STI etch mask, and  
5 trenches may be etched into a substrate (508). A trench dielectric layer can be formed over a  
6 first substrate side (510). An etch mask layer formed over a second substrate side can be  
7 etched (512), reducing and/or eliminating stress that may deform a substrate or otherwise  
8 adversely affect STI features. A trench dielectric may then be chemically-mechanically  
9 polished (step 514).

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